The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (Currently Amended) ~~Method~~ A method for encoding a source sequence of symbols ($\underline{u}$) as an encoded sequence, ~~characterised in that it includes~~ comprising steps according to which:

[[-]] a first operation is performed, of division into sub-sequences and encoding [[(508)]], consisting of dividing ~~said~~ the source sequence ($\underline{u}$) into p_1 first sub-sequences ($\underline{U}_i$), p_1 being a positive integer, and encoding each of the first sub-sequences ($\underline{U}_i$) using a first circular convolutional encoding method;

[[-]] an interleaving operation [[(506)]] is performed, ~~consisting~~ of interleaving ~~said~~ the source sequence ($\underline{u}$) into an interleaved sequence ($\underline{u}^*$); and

[[-]] a second operation is performed, of division into sub-sequences and encoding [[(507)]], ~~consisting of~~ including dividing ~~said~~ the interleaved sequence ($\underline{u}^*$) into p_2 second sub-sequences ($\underline{U}'_i$), p_2 being a positive integer, and encoding each of ~~said~~ the second sub-sequences ($\underline{U}'_i$) ~~by means of~~ using a second circular convolutional encoding method, [[;]]

[[-]] at least one of the integers p_1 and p_2 being strictly greater than 1 and at least one of ~~said~~ the first sub-sequences ($\underline{U}_i$) not being interleaved into any of ~~said~~ the second sub-sequences ($\underline{U}'_j$).

(It is noted that the above underlining of the following symbols is original, and is meant to be permanent: $\underline{u}$, $\underline{U}_i$, $\underline{u}^*$, $\underline{U}'_i$, $\underline{U}'_j$)

2.   (Currently Amended) ~~Encoding~~ The encoding method according to Claim 1, ~~characterised~~ in ~~that~~ which said first or second circular convolutional encoding method includes:

[[-]]   a pre-encoding step, ~~consisting~~ of defining ~~the~~ an initial state of ~~the~~ said encoding method for the sub-sequence in question, so as to produce a pre-encoded sub-sequence, and

[[-]]   a circular convolutional encoding step.

3.   (Currently Amended) ~~Encoding~~ The encoding method according to Claim 2, ~~characterised~~ in ~~that~~ which said pre-encoding step for one of ~~said~~ the first sub-sequences ($\underline{U}_i$) and said circular convolutional encoding step for another one of ~~said~~ the first sub-sequences ($\underline{U}_j$) already pre-encoded are performed simultaneously.
(It is noted that the above underlining of $\underline{U}_i$ and $\underline{U}_j$ is original, and is meant to be permanent.)

4.   (Currently Amended) ~~Encoding~~ The encoding method according to any one of the preceding claims, ~~characterised~~ in ~~that~~ which the integers p_1 and p_2 are equal.

5.   (Currently Amended) ~~Encoding~~ The encoding method according to any one of Claims 1-3, ~~characterised in that the~~ in which sizes of all the sub-sequences are identical.

6.   (Currently Amended) ~~Encoding~~ The encoding method according to any one of the preceding claims, ~~characterised~~ in ~~that~~ which said first and second circular convolutional encoding methods are identical.

7.   (Currently Amended) ~~Encoding~~ The encoding method according to any one of Claims 1-3, ~~characterised in that it further includes~~ further comprising steps according to which:

[[-]]   an additional interleaving operation is performed, ~~consisting~~ of interleaving ~~the~~ a parity sequence ($\underline{v}_1$) resulting from ~~the~~ said first operation of dividing into sub-sequences and encoding [[(508)]]; and

[[-]]   a third operation is performed, of division into sub-sequences and encoding, ~~consisting of~~ including dividing the interleaved sequence, obtained at the end of the additional interleaving operation, into p_3 third sub-sequences ($\underline{U}''_i$), p_3 being a positive integer, and encoding each of ~~said~~ the third sub-sequences ($\underline{U}''_i$) ~~by means of~~ using a third circular convolutional encoding method.

(It is noted that the above underlining of the following symbols is original, and is meant to be permanent: $\underline{v}_1$ and $\underline{U}''_i$)

8.   (Currently Amended) ~~Device~~ A device for encoding a source sequence of symbols ($\underline{u}$) as an encoded sequence, ~~characterised in that it has~~ comprising:

[[-]]   first means for dividing into sub-sequences and encoding ~~(205, 202)~~, for dividing ~~said~~ the source sequence ($\underline{u}$) into p_1 first sub-sequences ($\underline{U}_i$), p_1 being a

- 6 -

positive integer, and for encoding each of ~~said~~ the first sub-sequences ($\underline{U}_i$) ~~by means of~~ using first circular convolutional encoding means;

[[-]]   interleaving means ~~(203)~~, for interleaving ~~said~~ the source sequence ($\underline{u}$) into an interleaved sequence ($\underline{u}^*$); and

[[-]]   second means for dividing into sub-sequences and encoding ~~(206, 204)~~, for dividing ~~said~~ the interleaved sequence ($\underline{u}^*$) into p_2 second sub-sequences ($\underline{U}'_i$), p_2 being a positive integer, and for encoding each of ~~said~~ the second sub-sequences ($\underline{U}'_i$) ~~by means of~~ using second circular convolutional encoding means, [[;]] at least one of the integers p_1 and p_2 being strictly greater than 1 and at least one of ~~said~~ the first sub-sequences ($\underline{U}_i$) not being interleaved into any of ~~said~~ the second sub-sequences ($\underline{U}'_j$). (It is noted that the above underlining of the following symbols is original, and is meant to be permanent: $\underline{u}$, $\underline{U}_i$, $\underline{u}^*$, $\underline{U}'_i$, $\underline{U}'_j$)

9.   (Currently Amended) ~~Encoding~~ The encoding device according to Claim 8, ~~characterised~~ in ~~that~~ which said first or second circular convolutional encoding means have:

[[-]]   pre-encoding means, for defining ~~the~~ an initial state of ~~the~~ said encoding means for the sub-sequence in question, so as to produce a pre-encoded sub-sequence, and

[[-]]   circular convolutional encoding means proper.

10.   (Currently Amended) ~~Encoding~~ The encoding device according to Claim 9, ~~characterised~~ in ~~that~~ which said pre-encoding means process one of ~~said~~ the first sub-sequences (U_i) at the same time as said circular convolutional encoding means proper process another of ~~said~~ the first sub-sequences (U_j) already pre-encoded.
(It is noted that the above underlining of U_i and U_j is original, and is meant to be permanent.)

11.   (Currently Amended) ~~Encoding~~ The encoding device according to Claim 8, 9 or 10, ~~characterised~~ in ~~that~~ which the integers p_1 and p_2 are equal.

12.   (Currently Amended) ~~Encoding~~ The encoding device according to any one of Claims 8 to 10, ~~characterised in that the~~ in which sizes of all the sub-sequences are identical.

13.   (Currently Amended) ~~Encoding~~ The encoding device according to any one of Claims 8 to 10, ~~characterised~~ in ~~that~~ which said first and second circular convolutional encoding means are identical.

14.   (Currently Amended) ~~Encoding~~ The encoding device according to any one of Claims 8 to 10, ~~characterised in that it further has~~ further comprising:

[[-]]   additional interleaving means, for interleaving ~~the~~ a parity sequence

($\underline{v}_1$) supplied by ~~the~~ said first means ~~of~~ for dividing into sub-sequences and encoding ~~(205,~~

~~202)~~; and

[[-]]   third means ~~of~~ for dividing into sub-sequences and encoding, for

dividing the interleaved sequence, supplied by said additional interleaving means, into p_3

third sub-sequences ($\underline{U}''_i$), p_3 being a positive integer, and for encoding each of said third

sub-sequences ($\underline{U}''_i$) ~~by means of~~ using third circular convolutional encoding means.

(It is noted that the above underlining of the following symbols is original, and is meant to

be permanent: $\underline{v}_1$ and $\underline{U}''_i$.)

15.   (Currently Amended) ~~Method~~ A method for decoding a sequence of

received symbols, ~~characterised in that it is~~ adapted to decode a sequence encoded by an

encoding method according to any one of Claims 1 to 3.

16.   (Currently Amended) ~~Decoding~~ The decoding method according to

Claim 15, using a turbodecoding, ~~characterised~~ in ~~that~~ which there are performed

iteratively:

[[-]]   a first operation of dividing into sub-sequences [[(711)]], applied to

the received symbols representing the source sequence ($\underline{u}$) and a first parity sequence ($\underline{v}_1$),

and to the a priori information ($\underline{w}_4$) of the source sequence ($\underline{u}$);

[[-]]   for each triplet of sub-sequences representing a sub-sequence

encoded by a circular convolutional code, a first elementary decoding operation [[(703)]],

- 9 -

adapted to decode a sequence encoded by a circular convolutional code and supplying a

sub-sequence of extrinsic information on a sub-sequence of the source sequence ($\underline{u}$);

[[-]] an operation of interleaving [[(705)]] the sequence ($\underline{w}_1$) formed by

the sub-sequences of extrinsic information supplied by said first elementary decoding

operation [[(703)]];

[[-]] a second operation of dividing into sub-sequences [[(712)]], applied

to the received symbols representing the interleaved sequence ($\underline{u}^*$) and a second parity

sequence ($\underline{v}_2$), and to the a priori information ($\underline{w}_2$) of the interleaved sequence ($\underline{u}^*$);

[[-]] for each triplet of sub-sequences representing a sub-sequence

encoded by a circular convolutional code, a second elementary decoding operation

[[(706)]], adapted to decode a sequence encoded by a circular convolutional code and

supplying a sub-sequence of extrinsic information on a sub-sequence of the interleaved

sequence ($\underline{u}^*$);

[[-]] an operation of deinterleaving [[(708)]] the sequence ($\underline{w}_3$) formed by

the extrinsic information sub-sequences supplied by said second elementary decoding

operation [[(706)]].

(It is noted that the above underlining of the following symbols is original, and is meant to

be permanent: $\underline{u}, \underline{u}^*, \underline{v}_1, \underline{v}_2, \underline{w}_1, \underline{w}_2, \underline{w}_3, \underline{w}_4$)

17. (Currently Amended) ~~Device~~ A device for decoding a sequence of

received symbols, ~~characterised in that it is~~ adapted to decode a sequence encoded ~~by~~

~~means of~~ using an encoding device according to any one of Claims 8 to 10.

18.   (Currently Amended) ~~Decoding~~ The decoding device according to Claim 17, using a turbodecoding, ~~characterised in that it has~~ comprising:

[[-]]   first means ~~of~~ for dividing into sub-sequences [[(417)]], applied to the received symbols representing the source sequence ($\underline{u}$) and a first parity sequence ($\underline{v}_1$), and to ~~the~~ a priori information ($\underline{w}_4$) of the source sequence ($\underline{u}$);

[[-]]   first elementary decoding means [[(404)]], operating on each triplet of sub-sequences representing a sub-sequence encoded by a circular convolutional code, for decoding a sequence encoded by a circular convolutional code and supplying a sub-sequence of extrinsic information on a sub-sequence of the source sequence ($\underline{u}$);

[[-]]   means ~~(405) of~~ for interleaving the sequence ($\underline{w}_1$) formed by the sub-sequences of extrinsic information supplied by said first elementary decoding means (404);

[[-]]   second means ~~of~~ for dividing into sub-sequences [[(419)]], applied to the received symbols representing the interleaved sequence ($\underline{u}^*$) and a second parity sequence ($\underline{v}_2$), and to the a priori information ($\underline{w}_2$) of the interleaved sequence ($\underline{u}^*$);

[[-]]   second elementary decoding means [[(406)]], operating on each triplet of sub-sequences representing a sub-sequence encoded by a circular convolutional code, for decoding a sequence encoded by a circular convolutional code and supplying a sub-sequence of extrinsic information on a sub-sequence of the interleaved sequence ($\underline{u}^*$);

[[-]]   means ~~(407) of~~ for deinterleaving the sequence ($\underline{w}_3$) formed by the sub-sequences of extrinsic information supplied by said second elementary decoding means (406),

- 11 -

[[-]]   said means of dividing into sub-sequences ~~(417, 419)~~, of elementary

decoding ~~(404, 406)~~, of interleaving ~~(405)~~ and of deinterleaving ~~(407)~~ operating iteratively.

(It is noted that the above underlining of the following symbols is original, and is meant to

be permanent: $\underline{u}$, $\underline{u}^{*}$, $\underline{v}_1$, $\underline{v}_2$, $\underline{w}_1$, $\underline{w}_2$, $\underline{w}_3$, $\underline{w}_4$)

19.   (Currently Amended)   ~~Digital~~ A digital signal processing apparatus,

~~characterised in that it has~~ having means adapted to implement an encoding method

according to any one of Claims 1 to 3.

20.   (Currently Amended)   ~~Digital~~ A digital signal processing apparatus,

~~characterised in that it has~~ having an encoding device according to any one of Claims 8 to

10.

21.   (Currently Amended)   ~~Telecommunications~~ A telecommunications

network, ~~characterised in that it has~~ having means adapted to implement an encoding

method according to any one of Claims 1 to 3.

22.   (Currently Amended)   ~~Telecommunications~~ A telecommunications

network, ~~characterised in that it has~~ having an encoding device according to any one of

Claims 8 to 10.

23. (Currently Amended) ~~Mobile~~ A mobile station in a telecommunications network, ~~characterised in that it has~~ having means adapted to implement an encoding method according to any one of Claims 1 to 3.

24. (Currently Amended) ~~Mobile~~ A mobile station in a telecommunications network, ~~characterised in that it has~~ having an encoding device according to any one of Claims 8 to 10.

25. (Currently Amended) ~~Device~~ A device for processing signals representing speech, ~~characterised in that it includes~~ having an encoding device according to any one of Claims 8 to 10.

26. (Currently Amended) ~~Data~~ A data transmission device having a transmitter adapted to implement a packet transmission protocol, ~~characterised in that it includes~~ and an encoding device according to any one of Claims 8 to 10.

27. (Currently Amended) ~~Data~~ A data transmission device according to Claim 26, ~~characterised~~ in ~~that said~~ which the protocol is of ~~the ATM~~ an Asynchronous Transfer Mode type.

28.   (Currently Amended) ~~Data~~ A data transmission device according to Claim 26, ~~characterised in that said~~ in which the protocol is of ~~the IP~~ an Internet Protocol type.

29.   (Currently Amended) Information storage means, which can be read by a computer or microprocessor storing instructions of a computer program, ~~characterised in that it implements~~ implementing an encoding method according to any one of Claims 1 to 3.

30.   (Currently Amended) Information storage means, which can be read by a computer or microprocessor storing instructions of a computer program, ~~characterised in that it implements~~ implementing a decoding method according to Claim 15.

31.   (Currently Amended) Information storage means, which is removable, partially or totally, which can be read by a computer or microprocessor storing instructions of a computer program, ~~characterised in that it implements~~ implementing an encoding method according to any one of Claims 1 to 3.

32.   (Currently Amended) Information storage means, which is removable, partially or totally, which can be read by a computer or microprocessor storing instructions of a computer program, ~~characterised in that it implements~~ implementing a decoding method according to Claim 15.

33.   (Currently Amended) ~~Computer~~ A computer program containing sequences of instructions, ~~characterised in that it implements~~ implementing an encoding method according to any one of Claims 1 to 3.

34.   (Currently Amended) ~~Computer~~ A computer program containing sequences of instructions, ~~characterised in that it implements~~ implementing a decoding method according to Claim 15.